

# Notice of Allowability

Application No.

10/657,253

Examiner

Tony G. Soohoo

Applicant(s)

MURAKAMI ET AL.

Art Unit

1723

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11-16-2005.
2. ☒ The allowed claim(s) is/are 1-6.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 8-30-05
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Tony G Soohoo  
Primary Examiner  
Art Unit: 1723

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Pous on about February 3<sup>rd</sup> 2006.

The application has been amended as follows:

#### **IN THE CLAIMS:**

Amend claim 1 as follows:

Claim 1. (Currently Amended) A kneading or extruding rotor including a heat exchange system comprising:

a rotor body having an outer surface in contact with a heat-exchange object;

a heat-exchange chamber in said body, a heat transfer medium flowing in said heat-exchange chamber;

an inlet formed on at least one end of said body with a diameter less than that of said heat-exchange chamber;

a main tube, the heat transfer medium flowing in or flowing out of said main tube,

Art Unit: 1723

said main tube being insertably disposed in said heat-exchange chamber through said inlet and having a predetermined diameter so that a given space is ensured between said inlet and said main tube; and

branch tubes mounted on the outer surface of said main tube, each of said branch tubes having an opening on the top through which said main tube communicates with said heat-exchange chamber, said branch tubes being flexible and resilient, thereby being capable of deforming when passing through the space when said main tube is inserted or removed, and substantially returning to its original form.

The examiner initiated a telephone interview with applicant's representative to propose clarifying language of the structure of the branch tube. The changes were proposed in order to clarify structural nature and feature of the branch tubes which permits the branch tubes to operate in the manner recited during insertion and removal as pointed out in the body of the claim. Such feature has been discussed in the specification and along within applicant's argument filed 11-16-2005.

2. The following is an examiner's statement of reasons for allowance:

The claims are directed to a class of invention known as a kneader rotor. One such example a common type is the rotor of BANBURY. Also it is known to utilize pipe lines with a ductile material for ease of shaping such as copper pipes. However, the prior art structure and construction of the heating/cooling fluid of the prior art kneading rotors does not provide for the branch tube of a flexible and resilient construction to

Art Unit: 1723

permit a substantially precise configuration by provision of a relative self-repositioning tube for construction or repair advantages.

The prior art to Harland shows a retrofit system in a fluid delivery pipeline for hot water flow considerations. The Harland reference appears to be non-analogous art whereas it is directed to an problems related to a fixed fluid flow pipes from a water heater to a valve and retrofitting such the fixed pipeline structure. Additionally, there is insufficient motivation from the prior art in which would recognize an advantage or desire, to initially build or retrofit, a kneader rotor with a tube construction such as Harland.

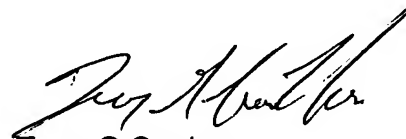
3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G. Soohoo whose telephone number is (571) 272 1147. The examiner can normally be reached on 7-5PM, Tue-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony G Soohoo  
Primary Examiner  
Art Unit 1723